

and may lead to very satisfactory results in geology, if we may judge by the fruits of our observations in this respect.

We could have desired to establish some general facts of much greater extent, founded on new observations recently made by us on the class of the Foraminifers; but the present occasion not admitting such an extension, let us pass to the Foraminifers of the white chalk of the Paris basin.

The geological position of the white chalk of Paris is so well known that we have not thought it necessary to speak of it; yet, if we seek to determine its position relatively to the other cretaceous beds by means of the Foraminifers it contains, compared with living species, the *facies* of the genera and species proves to us, that the chalk of Maestricht, of Fauquemont (Belgium), of Tours, of Chavagne, and of Vendome, is above it; while, on the contrary, all the other beds are below it; thus in the chalk of Maestricht and the upper beds of the basins of the Loire, we recognize only genera still existing, or at least occurring in tertiary tracts, while the white chalk of the Paris basin already exhibits to us different genera, such as *Flabellina*, *Verneuilina*, and *Gaudryina*, and a great number of species quite distinct.

It would therefore be easy to establish, by means of the Foraminifers alone, the relative antiquity of the cretaceous beds; but we must previously make two geographical sections quite independent of each other, founded on the zoological forms; the first comprising the entire basin of the Seine, of the Loire, of Belgium, and of England, in which we find a striking analogy between the species found in all the beds, from the lowest to the highest, with a regular passage from one to the other; the second, comprising the West and South of France, in which the species of Foraminifers have not only no analogy with those of the other section, but in which, moreover, almost all the genera are different. If we seek an example of this fact, we shall find it on comparing the green sand of the environs of Maus with that of the mouth of the Charente. The first, which in fact contains species approximating to those of the white chalk of Paris, contains already several species analogous to those which have lived up to that bed; while the second, with perfectly distinct species, presents to us genera different from all that we know in the cretaceous beds of the North of France and of Belgium.

The Foraminifers are sufficient to establish the following descending order of superposition in the cretaceous beds:—